

Notice of Allowability

Application No.

10/539,869

Applicant(s)

WILDHAGEN, JENS

Examiner

RuiMeng Hu

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed on 12/13/2007.
2. ☒ The allowed claim(s) is/are 1-4,6-11,16,17,20 and 23-25.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☒ SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☒ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

The application has been amended as follows:

a) **Claim 1.** A method for monitoring DRM broadcast signals at alternative frequencies during reception of a DRM broadcast signal at a present frequency, said DRM broadcast signals including static data symbols during time slots and radio program data during time intervals, said time slots and said time intervals being arranged in a sequence, in which one time slot is followed by one time interval and vice versa, said method comprising: receiving radio program data at a present frequency during a first time interval with a receiver gain of a present gain value; switching to an alternative frequency during a first time slot, wherein during said first time slot said receiver's gain settles to a second gain value; switching to said present frequency during a second time interval; receiving further radio program data at said present frequency during [a] said second time interval with a receiver gain of said present gain value; switching to said alternative frequency during a second time slot to check a broadcast signal; instantaneously switching the receiver's gain from said present gain value to said second gain value; and checking said broadcast signal at said alternative frequency during said second time slot.

b) **Claim 11.** A receiver for receiving DRM broadcast signals including static data symbols during time slots and radio program data during time intervals, said time slots and said time intervals being arranged in a sequence, in which one time slot is followed by one time interval and vice versa, said receiver being configured: to receive radio program data at a present frequency during a first time interval with a receiver gain of a present gain value; to switch to an alternative frequency during a first time slot, wherein during said first time slot said receiver's gain settles to a second gain value; to switch to said present frequency during a second time interval; to receive further radio program data at said present frequency during [a] said second time interval with a receiver gain of said present gain value; to switch to said alternative frequency during a second time slot to check a broadcast signal; and said receiver comprising: a gain control unit, wherein said gain control unit comprises: gain switching means for instantaneously switching the receiver's gain from [a] said present gain value to said second gain value [whenever] when [a] said broadcast signal at said alternative frequency is checked.

Allowable Subject Matter

2. **Claims 1-4,6-11,16,17,20 and 23-25** are allowed.

The following is an examiner's statement of reasons for allowance:

Consider **claims 1 and 11**, the best prior art of record found during the examination of the present application, **Cvetkovic et al. (US Patent 6141536)** fail to specifically disclose switching to an alternative frequency during a first time slot, wherein during said first time slot said receiver's gain settles to a second gain value, instantaneously

switching the receiver's gain from said present gain value to said second gain value and checking said broadcast signal at said alternative frequency during said second time slot.

Cvetkovic et al. clearly disclose an RDS receiver having dual tuners and dual antennas operates in two distinct modes, a diversity mode and a non-diversity mode, in non-diversity mode, microcontroller 16 gathers RDS data at the selected broadcast frequency including alternate frequencies (AFs) carrying the same broadcast audio program, signal quality of the AFs is collected and stored in memory based on signal strength and noise detection at each AF, after signal quality is gathered for all the AFs, a check is made to determine the best (i.e., strongest) frequency to receive; also the forcing circuit can be modified to provide ramping signals for controlling the gain control signals to smoothly transition reproduction from one tuner to the other.

Cvetkovic et al. further disclose that an RDS receiver having just a single tuner is well known in the art, wherein AFs can only be checked by briefly switching the tuner to an AF to detect its signal strength and then quickly returning to the original frequency before any detectable break is heard in the reproduction of the original broadcast.

The Examiner agrees with Applicant's Argument/Remarks (pages 14-15) filed on 11/13/2007 that Cvetkovic et al. fail to teach to switch to an alternative frequency during a first time slot, wherein during that first time slot said receivers gain settles to a second gain value, switching to that present frequency during a second time interval and switching to that alternative frequency during a second time slot, thereby instantaneously switching the receiver's gain from the present gain value to the second

Application/Control Number:
10/539,869
Art Unit: 2618

Page 5

gain value and checking said broadcast signal at said alternative signal during the second time slot, as recited in independent claim 1. Therefore, claims 1-4,6-11,16,17,20 and 23-25 of the present application are considered novel and non-obvious over the prior art and, consequently, are allowed.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any response to this Office Action should be **faxed to (571) 273-8300 or mailed**

to: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RuiMeng Hu whose telephone number is 571-270-1105. The examiner can normally be reached on Monday - Thursday, 8:00 a.m. - 5:00 p.m., EST.

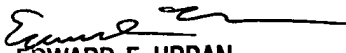
Application/Control Number:
10/539,869
Art Unit: 2618

Page 6

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RuiMeng Hu
R.H./rh
January 3, 2008


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
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